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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/619,781

07/14/2003

Naga Bhushan

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QUALCOMM INCORPORATED  
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EXAMINER

VU, MICHAEL T

ART UNIT

PAPER NUMBER

2617

NOTIFICATION DATE

DELIVERY MODE

06/20/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com  
kascanla@qualcomm.com  
nanm@qualcomm.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/619,781	<b>Applicant(s)</b> BHUSHAN ET AL.	
	<b>Examiner</b> MICHAEL T. VU	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-11, 15-18 is/are rejected.
- 7) ☒ Claim(s) 5-7, 12-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/16/2008</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 4/16/2008 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Response to Arguments***

2. Applicant's arguments, see Remark, filed 02/14/2008, with respect to the rejection(s) of claim(s) 1-4, 8-11, 15-18 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Arvelo (US 7,082,107), Lee (US 2001/0030955).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 8-11, 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arvelo (US 7,082,107) in view of Lee (US 2001/0030955).

**Regarding claims 1, 8, 15, 16, and 18**, Arvelo teaches a method for transmission of packetized data in a wireless communication system (Col 7, line 59 to Col. 8, line 1-17) having a designated packet error rate (Col. 1, lines 6-10), the method comprising: determining a first number of installments for transmission of a first packet of data (Col. 3, lines 25-33, Col. 4, lines 51-65); the power boosting transmissions of a second number of installments of the first packet of data (Col. 4, lines 23-65, Col. 8, lines 5-32),

**But Arvelo does not clearly teach** wherein the second number is less than the first number, wherein the second number is selected to satisfy the designated packet error rate; and terminating transmission of the first subpacket of data after the second number of installments.

However, Lee teaches wherein the second number is less than the first number, wherein the second number is selected to satisfy the designated packet error rate; and terminating transmission of the first subpacket of data after the second number of installments (See [0042, 0048-0053], and claims 25 and 29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Arvelo with Lee's teaching such that wherein the second number is less than the first number, wherein the second number is selected to satisfy the designated packet error rate; and terminating transmission of the first subpacket of data after the second number of installments, in order to enhance the quality of service and save cost such as minimizing the delay of retransmission and reducing time period of latency.

**Regarding claims 2 and 9**, Arvelo and Lee teach the method as in claim 1, wherein a power boosting gain factor is applied to each of the second number of installments [0042, 0048-0052] of Lee.

**Regarding claims 3 and 10**, Arvelo and Lee teach the method as in claim 2, wherein the power boosting gain factor is nominally set to (N/M) ([0042-0049] of Lee), wherein N is the first number of installments ([0042-0049] of Lee), and M is the second number of installments [0053-0054] of Lee.

**Regarding claims 4 and 11**, Arvelo and Lee teach the method as in claim 1, wherein terminating transmission of the first subpacket of data comprises: initiating a second subpacket of data after the second number of installments (Col. 4, lines 23-65, Col. 8, lines 5-32) of Arvelo.

**Regarding claim 17**, Arvelo and Lee teach the method as in claim 16, wherein the first negative acknowledgement has a first bit pattern (**equates re-transmit packet**, [0042-0049] of Lee), and the second negative acknowledgement is a different bit pattern orthogonal to the first bit pattern [0053-0054] of Lee.

#### ***Allowable Subject Matter***

5. Claims 5-7, 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**With respect to claims 5 and 12**, the prior art of record fails to disclose alone or in combination, wherein the first number of installments for the first subpacket of data corresponds to a first time period, wherein terminating transmission of the first subpacket of data comprises: waiting for expiration of the first time period; and initiating transmission of a second subpacket of data after expiration of the first time period.

**With respect to claims 6 and 13**, the prior art of record fails to disclose alone or in combination, further comprising: receiving a negative acknowledgement message after transmission of the second number of installments; and processing the first subpacket of data at a higher layer.

**With respect to claims 7 and 14**, the prior art of record fails to disclose alone or in combination, further comprising: receiving an acknowledgement message before transmission of all of the second number of installments; and initiating transmission of a second subpacket of data.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Vu whose telephone number is (571) 272-8131. The examiner can normally be reached on 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles N. Appiah can be reached on 571-272-7904. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Vu/  
Examiner  
AU-2617

/Charles N. Appiah/  
Supervisory Patent Examiner, Art Unit 2617